

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nick C. Kottis on February 8, 2011.

The Examiner initiated an Interview with the Applicant in order to make all the independent claims possess allowable material so that the application could be placed in a condition for allowance. The claims are amended as follows:

In claim 1, on line 1: after "process" the following is inserted: --using an optical device--.

On line 13: after "desired wavelength" the following is inserted:

--; wherein the controlled distribution of the refraction index of the beams is obtained by controlling electron density distribution in the control region; and wherein the control region is located in a plasma--.

In claim 14, on line 1: "device" is changed to --optical device--.

On line 13: after "desired wavelength" the following is inserted:

--; wherein said means to introduce a controlled distribution of the refraction index comprises resources to control the electron

density distribution in the control region; and wherein the control region is located in a plasma--.

Claims 2 -3 and 15-16 are canceled.

In claims 4 and 31, on line 1: "claim 3" is changed to --claim 1--.

In claims 17 and 37, on line 1: "claim 16" is changed to --claim 14--.

Allowable Subject Matter

2. Claims 1, 4-14, and 17-45 are allowed.
3. The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1 and 14, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, an optical device and process for generating, in a given direction of emission, radiation in a desired range of wavelengths, comprising: producing beams of initial radiation by a radiation source whose wavelengths include the desired range, filtering the beams of initial radiation to substantially eliminate the beams of flee initial radiation whose wavelength is outside the said desired range, wherein said filtering is effected by introducing a controlled distribution of the refraction index of the beams in a control region that is traversed by the initial radiation to selectively deflect the beams of the initial radiation according to their wavelength, and to recover the beams of a desired wavelength; wherein the controlled distribution of the refraction index of the beams is obtained by controlling electron density distribution in the control region; and wherein the control region is located in a plasma.

The key element of the applicant's invention, not disclosed in the prior art but present in both of the independent claims, is that the filtering is effected by introducing a controlled distribution of the refraction index of the beams in a control region that is traversed by the initial radiation to selectively deflect the beams of the initial radiation according to their wavelength; wherein the controlled distribution of the refraction index of the beams is obtained by controlling electron density distribution in the control region; and wherein the control region is located in a plasma.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. P. Choi (2010/0183984 A1) discloses an apparatus and process for generating radiation through an output aperture by a plurality of radiation sources. Renard-Le-Galloudec et al. (7,555,102 B1) disclose systems and methods for imaging using radiation from laser produced plasmas. Schuermann et al. (2010/0078578 A1) disclose a method and arrangement for the operation of plasma-based short-wavelength radiation sources. Altshuler et al. (2006/0004306 A1) disclose methods of treatment of tissue with electromagnetic radiation.
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484.

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The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The central fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nikita Wells/

Primary Examiner, Art Unit 2881

February 2, 2011